

WHO SUCCEEDS AT UNIVERSITY? FACTORS PREDICTING ACADEMIC ACHIEVEMENT OF FIRST-YEAR DUTCH STUDENTS

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Over the years, higher education researchers have examined the factors that influence or enhance academic achievement and factors that prevent students from dropout. In the early days the emphasis was on effects from student variables such as ability and socio-economic status. More recently -influenced by school effectiveness research- variables related to the educational system and related to the manner in which institutions organise their education have been included in the analyses. This paper examines these three complexes of factors and focuses on the problem “what influences academic achievement of first-year students at the University of Groningen?”

The factors that influence achievement can be divided into three complexes of factors (Prins, 1997). Firstly, these concern the factors that are related to the characteristics of the higher education system and study financing. For example, in Dutch higher education measures concerning the nominal study length and the nominal enrolment length as well as measures concerning study financing have been a major topic on the political agenda (Van den Berg, 2002; Jansen, 1996). Secondly, one distinguishes a complex of factors that is related to the manner in which institutions organise their education. These concern factors on the curriculum level, such as the spread of courses in the curriculum and the policy related to assessment (Van den Berg, 2002; Jansen, 1996). Beside that, these factors concern the course environment in terms of the quality and the quantity of instruction (Slavin, 1995). The final complex of factors concerns the student characteristics, which concerns background characteristics, such as gender, age and ability, but also cognitive and meta-cognitive learning strategies and positive beliefs, motivation and emotions towards study (Covington, 2000).

Despite this variety of studies on academic achievement and dropout, some aspects need to be examined in more detail. First, most of the interaction models mentioned above have focused on the relationship between student characteristics and academic achievement, while characteristics related to the way institutions organise their education have received less attention. Further, even if these studies have included these characteristics they mainly concerned quantitative aspects of education instead of the quality of the course/ the learning environment. Finally, most models included a cross-sectional design, while a longitudinal design would be preferable.

To examine these aspects three research questions were specified, namely:

- (1) How much of the variance found in academic achievement do the total models explain?
- (2) What are the magnitude and the direction of the relationship between the explanatory variables and academic achievement?
- (3) Are there any differences between departments and cohorts in the effects of the factors on achievement?

Four groups, two departments and two cohorts, of first-year students filled in a self-report questionnaire on their motivation and on their information processing approach, which concerned aspects such as critical reading. Next to the self-report questionnaire, student ratings provided information on the quality of the courses, such as the quality of the assessment. Finally, information on the quantity of the courses, in terms of number of contact hours was obtained through paper sources, such as study guides and syllabi. Multilevel analyses showed that a student's ability and motivation, the quality of assessment and the numbers of self-study hours, active hours and passive hours, affected achievement.